8. "An Investigation of the Powers of the simple Supporters of Combustion to destroy the virulence of Morbid Poisons, and of the poisonous Gases, with a view to ascertain the possibility of controuling the extension of contagious or epidemic Diseases," by Edward Browne, Esq. F.L.S. Communicated by J. H. Green, Esq. F.R.S.

The author, after giving an account of the diversity of opinions entertained with regard to the power of chlorine gas to destroy contagion, states that this gas exerts a similar disinfecting power on the virus of small pox, and mentions the result of some experiments he tried on gonorrheal matter, on which it appeared to effect a similar change. Various experiments are stated to have been made with iodine and with oxygen, indicating the same disinfecting agency in these substances. The author conceives that these effects are promoted by the heat communicated to the respired air in the lungs. He conceives that sea air possesses a disinfecting power, which he explains by supposing that it contains a portion of iodine. He conjectures, from analogy, that fluorine and bromine may have the same property.

9. "Considerations on the Laws of Life, in reference to the Origin of Disease," by Adair Crawford, M.D. Communicated by T. J. Pettigrew, Esq. F.R.S.

The scope of this paper is to show the insufficiency of all theories which attempt to account for the phenomena of the living body, either in health or disease, by an exclusive reference either to the solids or to the fluids which enter into its composition; or to the influence of an abstract and unknown principle of life; or to that of physical or chemical agents; or to the functions of the nervous, or of the vascular systems. For the establishment of the sciences of physiology and pathology upon the most solid foundations, the author is of opinion that all the circumstances above mentioned should be duly taken into account, and allowed their respective and proportionate degree of influence.

10. "On the Water Barometer erected in the Hall of the Royal Society," by J. F. Daniell, Esq. F.R.S. Professor of Chemistry in King's College, London.

The author having long considered that a good series of observations with a water barometer would be of great value as throwing light upon the theory of atmospheric tides, of the horary and other periodic oscillations of the barometer, and of the tension of vapour at different temperatures, was desirous of learning whether any such series of observations had ever been made. But he could meet with none having any pretensions to accuracy; for neither those of Otto Guericke, in whose hands the water barometer was merely a philosophical toy, nor the cursory notices of the experiments of Mariotte upon this subject contained in the History of the French Academy of Sciences, can be considered as having any such claim. The difficulties which opposed the construction of a perfect instrument of this kind long appeared to be insurmountable; but the author at length proposed a plan for this purpose, which, having been approved of by the late Meteorological Committee of the Royal Society, was ordered by the President and Council to be carried into execution.